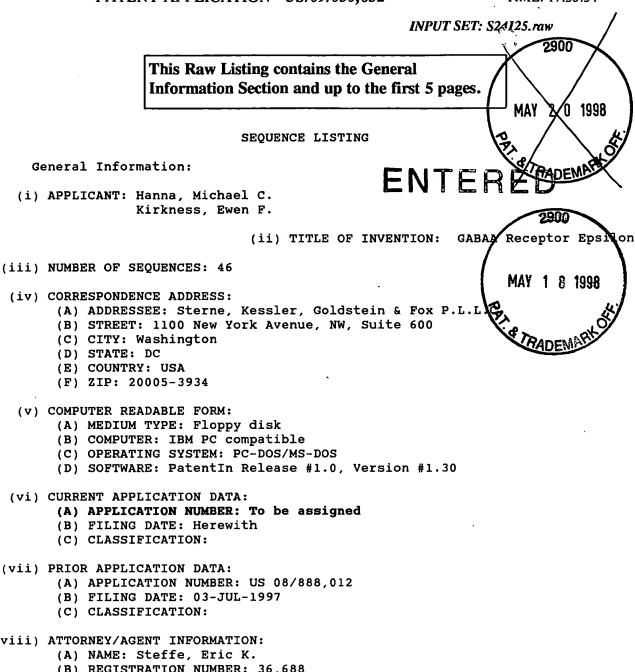
(1)

RAW SEQUENCE LISTING PATENT APPLICATION US/09/030.832 DATE: 03/12/98

TIME: 17:33:54



 (viii) ATTORNEY/AGENT INFORMATION:

(A) NAME: Steffe, Eric K.

(B) REGISTRATION NUMBER: 36,688

(C) REFERENCE/DOCKET NUMBER: 1488.0950001/EKS/SGW

(ix) TELECOMMUNICATION INFORMATION:

(A) TELEPHONE: (202) 371-2600

(B) TELEFAX: (202) 371-2540

(2) INFORMATION FOR SEQ ID NO:1:

47

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/030,832

DATE: 03/12/98 TIME: 17:33:56

47 48 49 50 51 52 53 54 55 56 57 58 59	<ul> <li>(i) SEQUENCE CHARACTERISTICS: <ul> <li>(A) LENGTH: 6146 base pairs</li> <li>(B) TYPE: nucleic acid</li> <li>(C) STRANDEDNESS: double</li> <li>(D) TOPOLOGY: linear</li> </ul> </li> <li>(ii) MOLECULE TYPE: DNA (genomic)</li> <li>(ix) FEATURE: <ul> <li>(A) NAME/KEY: CDS</li> <li>(B) LOCATION: 38724597</li> </ul> </li> </ul>											
61 62 63	(xi) SI	EQUENCE DES	CRIPTION: S	EQ ID NO:1:								
64 65	GTCTTATAAT	TGCTAAGCAC	TTACAACTGT	TTGCAGAGGA	AACTGAGACT	TTGTAACTAT	60					
66 67	GTCTCAGTCT	CATCTGCAAA	GAAGTAAGTG	CTTTGCCAAG	CTCCTTGAGA	GGTTAGGTAA	120					
68	GTAGATAAAG	TTCTGCTGCT	GTCGGAATGT	GCAGCTGGCT	TTTTCATGCA	GACCCTTCAG	180					
69 70	TTTCGAGGTT	ACAACTCTGA	CCTCTTTGGA	TGACTTTGGG	GAATGGAGCT	CGTGTGAGTT	240					
71 72	CTCCATACCC	AGAACCAATC	CAGTCTGGTT	GAATGGGAAG	CAAAGTCCAT	TGTAGTGGGA	300					
73 74	GGTGGAGGCT	AGAGTTCTAA	TGTCAGCTAG	TTTAAGGCTG	GGAAAGTCTG	GAGGAAGTTA	360					
75 76	CAGCAGCTAC	ACTGGCTGCT	GCATTGACAT	TTATCTTAAA	GGAACAAGTC	TGAAAAGCAC	420					
77 78	AGATTCTTAT	CAAAGGCTTC	ATGGTGGATT	CCACATAGAC	ATAGTGGCCA	CTGGTTTTCT	480					
79 80	GACCTTTTCT	CTGACAAAGA	CTAAAGGGGA	AGGTCCTGGG	TATCTTACAC	TTCAGCTCCC	540					
81 82	AATTAGATGT	GAGCACCTTC	ACTTATGTTC	CTAGGTGACC	TGAATGAGGA	GCCAAGGGAC	600					
83 84					TCACACATCC		660					
85												
86 87						AGTCACCCAA	720					
88 89	CCAGCCATTT	GTCGTGAGAG	GCATCTTGTT	CTGCTACCAT	GTGACTAGGC	AGAAAATCTG	780					
90 91	CTTTTGTTTC	ATTTATTGAG	TCAGTCTCTG	GATGAGGGAA	AGCTCATGCT	CATGTGGCTA	840					
92 93	GAGCTTTGCT	TGCACAGTAT	TAGGCAGGGG	CAGAGGGCTG	GGCTACCTTA	AAAATACTTG	900					
94 95	CCCTTTTTCT	TGGGGACTCT	GGGGAAGCGG	TTTTACTACC	TTTGACTTGG	GAGCCTTGCT	960					
96	CTTCTGCCAG	CTAACCATGG	GCCTGCCTCT	TGGTTTTCTG	CACCTCAGCT	TTTCCCGGAT	1020					
97 98 99	AGGTGGGGAC	CCATCATCAA	AAGTGACAGA	GAAGATAAGG	CCCAGGGGCT	TTCAAGTCAC	1080					

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						INPU1 5E1: 52412:	o.raw
100	TAGTGGTTCC	GTTTAGTAGA	TGATTGTGCA	TTGTTTCAAA	ATGGTGCCCT	AGTGACTACA	1140
101 102	AAGCCCCAGA	GCCAGCATCA	TCATCAAAGC	AATGACAGTA	GGTAAGCACC	AGACCTCCTT	1200
103 104	GGGAGTGAGG	AGGATTCTTG	AGGAGAAAAG	AGGTCTTCTT	TCTCCTCTGC	TGGAGACTAG	1260
105	mma a mamaa a	GACGTGGTTC	amma a amama	3.0.3.0mm3.mcm	TITICOCA CTICO	пспск касто	1320
106 107	TIGATCIGGA	GACGIGGIIC	CITCAATGIC	AGAGITATCI	TIGGGACIGG	TCTCAAACTC	1320
108	TTCCAGTTGG	GCCCTGGGGC	AGGTCTCTCC	ATCTGGAGCA	TACTTACGTG	CTCGGCGATT	1380
109 110	AAGGGTTCAG	AATGCAGTGG	TAGCCTGCTA	CTCTGGCCAT	CTTGGACCTT	GATCCAGAGA	1440
111		a. aa. aamma		a	maa.a.a.a.	a a a m m a a a a m	1500
112 113	ATCTCTGCTT	CAGGAGCTTC	TAAGAGAGTC	CAGCCCTGCC	TCCAGAGAGA	GGCTTGCCCT	1500
114	TCACTGATGG	CTGTGGAGCC	TCTGATGGAA	TATTATTGCT	GGTCAGGAAT	TCACTGTCTT	1560
115 116	ACAAGGAGGT	TTCCTTCTTC	TCTAGACAGT	ТСТСТТСАТС	AAAAAACTCT	СССТСТТСТТ	1620
117							
118 119	CTGAAATTGG	AGTCTCTGGA	AGTTCCACAC	ATTAAGCTTA	GTTCTTTTTC	CTTGGAACTG	1680
120	TCCAGGTTAC	ATTAGTCCAG	CCACTGTTTC	ACAGGACCGA	GATTAAACGA	TCAACATCAT	1740
121 122	CATTECCCCCC	ATGGATCATA	CTCTCTTCTA	CTCTACATAC	CCCTACTTA	ጥጥጥጥርጥጥርር	1800
123	CATTCCCGGC	AIGGAICAIA	GICIGIIGIA	GICIACATAG	CCCIAGITIA	TTTTTCTTCC	1000
124	CTTATTCTTC	AAAGCTTTGG	GTCCATTCAT	TCTTCTAGTC	CCAGTCCTCT	GGACATGGTC	1860
125 126	TATTTAATTG	TGTCCCTCTG	ACACTGCAGT	GACCAACCAT	GATCTGGTCA	AAGAGGATAA	1920
127							
128 129	GAGTTTGAGC	AGAAAACCAT	CTTTAGCATA	TATTTTTTG	CTTTGGTTCA	TCAGCCCCAG	1980
130	ATATATTGTT	TTCCTTACCC	GTGCTTCTCT	CACTCCTCAA	GAAGAAGAAA	GTGTGTGTTA	2040
131 132	GC A ጥር ጥጥጥር ጥ	CTTGTCCTTC	ΔΑGACAAATT	GGCATCTCTT	GACGAGCGGA	<b>GAAGGTTCTT</b>	2100
133	CORTOTITO	0110100110	mionombii i	COCATOTOTT			
134 135	TTTTGGCCAG	AATAAATAA	ATTAAAATAG	AATCATCCAA	CAGAATAATA	AATCTTCGTG	2160
136	CAACAAGAAT	ATATTATATA	AACCCAGCAA	TTTTGCAGGG	CCTGGGTATA	ACTAATTAGA	2220
137 138	አርጥርጥርጥጥ አ	ATTGCAGTCA	AGATCCCACG	CCAAGAGGAC	ጥጥጥጥርልጥልልል	<b>ጥል</b> ሮል ጥጥር ጥር ር	2280
139	AGIGICITAA	ATTGCAGTCA	AGATCCCACG	GCARGAGGAC	IIIIOAIAAA	TROATTOTOO	2200
140	CCAGTAGGCA	AGTGCGAGGG	TGGTCCGTGC	AGCAGCTCTG	GAGGAGTTCT	ATCCCAAAGC	2340
141 142	TATACTCAAC	ACACAGGTTT	CCCACTGACA	ACAGGTCGCT	CCCTTGCCTT	CTTCCAGAAG	2400
143							0.44
144 145	AATCTGAGAA	GCTTTGCTCC	TTGAGTTTCA	GTGCTGCCAA	GGTGAGTACG	AAAGGCTGCT	2460
146	CTTCTCATTC	AGCTCCAGCC	CACCCAGACC	TGCTGGGCAG	TTGATCCACT	TTCCAAAATA	2520
147 148	GGAGGACACA	CGGACAGGTT	AGTGTTCTGG	<b>ጥርጥርርጥጥጥል</b> ር	ΔΔΔGCTGTTG	CCTGACAGGA	2580
149							
150 151	GCAAGAGTTG	CTGAGTGTCT	GCTGGGTTCC	AGGCTGTTCT	GAGCTTGGAT	GGGCAGGGGC	2640
152	TAAGCCACAG	GGCCTGCATG	AGCCCTGCCT	TGAAGGGACT	TAAAAGACGA	CCTAATTATA	2700

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1 - 2												_			
153 154	GGCCT	AGGAA	TTTT	ACAGTA	TTGCA	ACTG	C AA	TGTG	ATGC	TGA	AAGTG	GA	AAAT	GATGTC	2760
155 156	CTGGG	CTCAG	AGAA	AAGCCC	ACACC	AGCCI	r gg	GAGT	CATG	ATAC	GCAGC.	AG	AGTG	CTTGGG	2820
157 158	GAGGG	rgtgt	CAGA	GCATAA	AGCAG	CATG	AT.	GCTA	CAAA	AGA!	AGATG	CC	AACT	AGAGAT	2880
159 160	ATAGGT	TGTC	ATCA	GGTCCC	: GGAGG	AGCC	A TG.	ACCG'	тста	GCT	BAGAG	CC	ATGAG	CCAAGG	2940
161 162	ACACA	TGTC	CAAG'	TGACTO	TGAGG	ACCTO	. AG	TCTG	СССТ	GTG	SATGT	GТ	ATGC	CACAGA	3000
163															
164 165	CCTGAC	CTTCT	GGAG	GGCTGA	CTGAA	ATGTT	CA	TTTT	AAGC	TTTT	rtctt(	CT	CTTTC	CCTGA	3060
166 167	AACACT	CAGT	TTGG	GTTAGG	GGTCA	TAGAC	TA	AGAC	CAAA	GAG	rccag	GG	TTAG	AATCTT	3120
168	GGTGT!	TAAA	TGCA	GGCCAT	CTCAG	GAAAT	г ст	GTGA	GCAG	ATG	GATT(	GG	CTTTC	GGTAA	3180
169 170	сстссс	מיינייני	GAAA	እ ጥረታጥር <b>አ</b>	GTGGG	AGCCC	י ממי	ጥሮ እጥ	аата	ggcg	א חייויים א	ac.	<b>አ</b> ሞሮ እር	ያ <b>ለ</b> ጥጥርር	3240
171	331300	31010	OAAA	RIGICA	01000	AGCCC		ICAI	3019	3300	-111A	GC	AICA	SALICC	3240
172	AGAGTO	CAGA	TAGT	CTGTAT	AGCTC	ATGTO	AA E	ACAG	GGAG	CCAC	CCAAA	AC	TTTG	GGGAGC	3300
173 174	ልርርርጥ፤	ሊርጥርር	רממייי	ጥጥጥርልር	CACCT	CTCC1	י פר	A CTC	מיייני א	מיים ז	ACGA A	GG	ር ያ ብብ	יייניים מר	3360
175	A00017	10100	0001	rrione	CHOCI	01007		no i o	oron	010.	100111	-	OAII.	ITOCCA	3300
176	TCACAT	rgaat	GTGC.	AGAAAG	GAGGC	CAAA	GC.	ATTC'	TGTG	CTTC	CTCCA	CC	ACAG	CACAGA	3420
177 178	CTTCCC	CTAGT	CTCA	TTTGCT	GAGAG	TAGAC	AT'	TCTG	AGGG	CCAC	GCAGT(	GC	AGGT	GTGATG	3480
179 180	TGCCTC	CAGAG	GGTA'	TGAAGC	CCTTA	GTCAC	CC.	ATCT	GGAT	ATC!	AGCTG	CG	TGGG	CATGAT	3540
181	3 mam 3 d		ama ai	mm< > mm		a commo		aama	s ama	mama	10000 B		amaa:		3600
182 183	ATCTAC	JAAGG	CTAA	TTGATT	TTTTC	ACTT	CA	CCTG	ACTC	TCT	rGCCA	AC	CTGC	AGAGAC	3600
184	AGACAT	TGGG	TGTA	GGACAG	TGAAC	TGAG	A AG	GAAG	CTAT	TAAC	SATTC'	TG	GCCT	rggctt	3660
185 186	AGCTCT	רר א א רי	TGGC	СУПТСС	TCTTG	የር እርጥ፣	A A C	ጥርተው	րարա	ርሞርር	ያር <b>ር</b> ጥጥ (	cт	ጥሮጥርር	מייר ריי א	3720
187	AGC 1C	CAAC	1000	CATIGO	, iciid	CAGIF	. AG	1011		CIGO	30011	-1	10100	JICCIA	3720
188	TTTGT!	ATGTA	TTGC.	ATTGTC	ACATO	ATGC	TC	TATC	CTAG	GGA	ATACT	GT	GAGC	<b>rgaaaa</b>	3780
189 190	ATGAG	ACCCT	TACT	GTTCAC	GTCCT	GCTA <i>I</i>	A GG	GGGA	CCGT	CGTC	STCAG	CA	CTGT	AATGCA	3840
191															
192	GTGAT	TTTT	TTGT	GTCTTI	CAGGT	GACT									3892
193							]		Val 1	Met 7	Chr I	le -	Phe I	Phe	
194								1				5			
195 196	አልሞ ርባ	ra Na	G 3.00	CCC T	TT GGC	יייאייי	Curt	acc	արդ	CAA	אאת י	יי איד	o come	CCT	3940
197					he Gly										3940
198	ADII V	1	_	9 -	017	15	•••	niu		O±	20	- 1 -			
199		_									20				
200	TCT TO	C GT	G ACC	ACG A	TG CTC	TCC	TGG	GTT	TCC	TTT	TGG 2	ATC	AAG	ACA	3988
201					let Leu										
202		25			30		_			35	-		_		
203															
204					GG ACC										4036
205	Glu Se	er Al	a Pro	Ala A	rg Thr	Ser	Leu	Gly	Ile	Thr	Ser '	Val	. Leu	Thr	

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206	40					45					50			**	11 0 1	55	524125.1617
207	- •										•						
208	ATG	ACC	ACG	TTG	GGC	ACC	TTT	TCT	CGT	AAG	AAT	TTC	CCG	CGT	GTC	TCC	4084
209															Val		
210					60				3	65				•	70		
211					- •												
212	TAT	ATC	ACA	GCC	TTG	GAT	TTC	тат	ATC	GCC	ATC	TGC	TTC	GTC	TTC	TGC	4132
213															Phe		
214	- 7 -			75		<u>F</u>		-,-	80			-1-		85		-7-	
215									•								
216	TTC	TGC	GCT	CTG	TTG	GAG	ттт	GCT	GTG	CTC	AAC	TTC	CTG	ATC	TAC	AAC	4180
217														_	Tyr		
218		-,-	90					95					100		- ] -		
219			- •														
220	CAG	ACA	ΔΔΔ	GCC	САТ	GCT	тст	CCT	ΔΔΔ	стс	CGC	CAT	ССТ	CGT	ATC	ТАА	4228
221															Ile		1220
222	0111	105	цуо	ALG	1113	ALU	110	110	<b>1 1 1 1</b>	Bea	n. g	115	110	n- 9	110	AU.	
223		103					110					110					
224	AGC	ССТ	מככ	СУТ	מממ	ССТ	ACC	ССТ	GCA	ССТ	<b>דר</b> כ	CGA	פככ	ጥርጥ	GCC	CGC	4276
225															Ala		4270
226	120	A. y	ALG		ALU	125		nr 9	ALU	Ar 9	130	nr 9	ALG	O J D	ALG	135	
227	120					123					130					133	
228	CAA	СУТ	CAG	GAA	GCT	արդուր	GTG	TGC	CAG	א ייייי	GTC	ACC	ΔСТ	GAG	GGA	ΔСΤ	4324
229															Gly		1521
230	01		01	Olu	140	1110	*41	oy5	<b>O</b> 111	145	<b>*</b> 44	****		014	150	501	
231				-	110					110					100		
232	СУТ	GGA	GAG	GAG	cac	cca	ጥርጥ	TGC	ሞሮል	GCC	CAG	CAG	מממ	CCT	AGC	CCA	4372
233															Ser		4372
234	пор	O_y	014	155	n-9	110	501	C,D	160	n_u	<b>0</b> ±	01	110	165	501	110	
235				1,33					100					103			
236	ССТ	AGC	CCT	GAG	сст	CCC	CGC	AGC	כיייכ	ጥርር	TCC	λλG	CTG	GCC	TGC	ጥርጥ	4420
237															Cys		1120
238	1		170		1		9	175		-,-		-1-	180		-,-	-1-	
239																	
240	GAG	TGG	TGC	AAG	CGT	ттт	AAG	AAG	TAC	TTC	TGC	ATG	GTC	CCC	GAT	TGT	4468
241															Asp		
242		185		-3-	5		190	-1-	- 2 -		- 4 -	195				- 2 -	
243																	
244	GAG	GGC	AGT	ACC	TGG	CAG	CAG	GGC	CGC	CTC	TGC	ATC	CAT	GTC	TAC	CGC	4516
245															Tyr		
246	200	3				205		2	3		210				- 2 -	215	
247																	
248	CTG	GAT	AAC	TAC	TCG	AGA	GTT	GTT	TTC	CCA	GTG	ACT	TTC	TTC	TTC	TTC	4564
249															Phe		
250		•		-	220	,				225					230		
251																	
252	ААТ	GTG	CTC	TAC	TGG	СТТ	GTT	TGC	СТТ	AAC	TTG	TAGG	STAC	CAG	CTGGT	racco	T 4617
253						Leu											
254				235			·	- , -	240								
255																	
256	GTGG	GGC2	AAC (	стстс	CAG	rr co	CCAC	GAG	TCC	CAAGO	ccc	TTGC	CAAC	igg i	AGTTC	GGGG	A 4677
257						"											
258	AAG	CAGC	AGC I	AGCAG	GCAG	GA GO	CGAC	raga(	TTT	TTC	CTGC	CCC	ATTC	ccc i	AAAC	AGAAG	C 4737
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### **SEQUENCE VERIFICATION REPORT** PATENT APPLICATION *US/09/030*,832

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Original Text

27

Wrong application Serial Number

(A) APPLICATION NUMBER: To be assigned